GEORGIA DOT BRIDGE NO. 015-00003D-01146 & GEORGIA DOT BRIDGE NO. 015-00003D-01147
Spanning State Route 3 on U.S. Route 41, Northbound & Southbound
Cartersville
Bartow County
Georgia

HAER GA-149
GA-149

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
SOUTHEAST REGIONAL OFFICE
National Park Service
U.S. Department of the Interior
100 Alabama St. NW
Atlanta, GA 30303

HISTORIC AMERICAN ENGINEERING RECORD

GEORGIA DOT BRIDGE No. 015-00003D-01146 HAER No. GA-149
GEORGIA DOT BRIDGE No. 015-00003D-01147

Location:	U.S. 41/State Route 3, intersecting State Route 61 North Cartersville Bartow County, Georgia U.S.G.S. 7.5 minute Cartersville Quadrangle Universal Transverse Mercator coordinates: 16.702740.3786420
Date of Construction:	1954
Engineer:	Georgia State Highway Bridge Department
Builder:	Georgia State Highway Bridge Department
Present Owner:	Georgia Department of Transportation No. 2 Capitol Square, SW, Atlanta, Georgia 30334-1002
Present Use:	Vehicular traffic on US Highway 41/State Route 3 Vehicular bridges Bridges to be removed and replaced in 2009
Significance:	Both three-span continuous reinforced concrete slab bridges have a variable depth slab, concrete balustrades, safety walks, three-column concrete bents with arched caps, and spill through abutments. They have a greater degree of Moderne style detailing than is commonly found on most early 1950s state highway bridges. They are well proportioned, long span examples of concrete slab bridges. This resource possesses a state level of significance in the area of transportation as one of the earliest dualized major rural highways built in the state of Georgia. It also possesses significance for its method of road design and construction.
Report Prepared By:	Chad Carlson GDOT Architectural Historian Office of Environment and Location Georgia Department of Transportation 3993 Aviation Circle Atlanta, Georgia 30336
Date:	October 2008

Introduction

Georgia DOT Bridge Nos. 015-00003D-01146 and 015-00003D-01147 are identical twin bridges constructed in 1954. Bridge No. 015-00003D-01146 carries two northbound lanes of U.S. 41/State Route 3 and Bridge No. 015-00003D-01147 carries two southbound lanes of U.S. 41/State Route 3. The identical bridges span the four lane State Route 61 in Cartersville, Georgia (Bartow County). Each is a three-span, concrete slab type bridge constructed of reinforced concrete with concrete balustrade railings, safety walks, three column concrete bents with arched caps, and spill through abutments.[1] Although the bridges carry U.S. 41, a route usually associated with the "Dixie Highway," according to a map on its website, The Georgia Dixie Highway Association shows that the portion of U.S. 41 at which these identical bridges are located is not part of the "Dixie Highway."[2]

Background

Georgia's State Highway Department was created in 1916, focusing on road improvement and expansion as a means to bring Georgia and the South into the new industrial age. Proponents of the highway systems argued that good roads meant increased tourism and trade, which in turn translated to an economic competitiveness with other regions of the country not seen since prior to the Civil War.[3]

The fourth annual report from Georgia's state highway engineer concluded: "When the Highway Department came into existence…one of the most urgent needs of the State road system was the immediate construction or reconstruction of a large number of bridges. Many of the State were served by ferries or low water bridges and traffic was frequently interrupted by high water."[4] The 1950s experienced the largest volume of bridge construction in the state's history. In the ten year period from 1946 to 1956, the Georgia Department of Transportation let contracts for over 1,400 bridges.

In 1935, the Highway Department began adhering to the American Association of State Highway Officials (AASHO). First published in 1931, AASHO's specifications served as a model for state standards. The specification set forth minimum requirements for every detail of bridge design, from the substructure to the railings. The result was that highway bridge design became

---

[1] Georgia Department of Transportation and Lichtenstein Consulting Engineers, Inc., Historic Bridge Inventory database
[2] http://www.dixiehighway.org/dixie_northbound.htm
[3] Howard Lawrence Preston, "Dirt Road to Dixie: Accessibility and Modernization in the South, 1885-1935," Knoxville: University of Tennessee Press, p. 42.
[4] Georgia Department of Transportation and Georgia Department of Natural Resources, "Historic Bridge Survey," September 1981, p. 28.

standardized. Thus, the majority of Georgia's post-1930 highway bridges were not technologically exceptional as their design was much like that of every other state.[5]

During World War II, construction was limited to a few critical defense highways. To initiate postwar economic recovery, the Federal Highway Act of 1944 provided $125 million to urban areas for the construction of highways.[6] The War had depleted the nation's timber reserves, and during the Korean War (1950-1953), steel was rationed; the highway department received about half as much structural steel as needed to complete its scheduled bridge projects. As a result of the timber and steel shortages, the department expanded use of concrete. [7]

Reinforced concrete was introduced in this country from Europe in 1886. By 1912, reinforced concrete bridge technology was used throughout the country. The desirability of using pre-cast concrete over structural steel or cast in place concrete construction became by the mid 20th century a matter of economics rather than technological development. Precast concrete had the advantages of elimination of on site labor; speed of construction; better maintenance of traffic flow; and closer control of concrete mix, placing, and curing, obtained through factory-like operations in large casting yards.[8] Slab bridges date to 1911 in Georgia. The state highway department used the slab bridge type in the early 1950s for spans up to 35-ft.[9]

In the late 1940s and early 1950s, U.S. routes 1, 17, 23, 29, 41, and 80 in Georgia were upgraded. In urban areas, highways were expanded from two- to four-lane dualized highways with heavier bridge design loads.[10]

Bridge Nos. 015-00003D-01146 and 015-00003D-01147

Constructed in 1954, these identical bridges are well proportioned, long span examples of concrete slab bridges. With their balustrades, the bridges have a greater degree of Art Moderne style detailing than is commonly found on most early 1950 state highway bridges. No other continuous slab bridges of similar size and design were identified.[11]

---

[5] Lichtenstein and Associates, "Historic Contexts: Bridge Building Technology in Georgia." Historic Bridge Inventory Update [Unpublished manuscript on file with the Georgia Department of Transportation's Office of Environment/Location, Atlanta, Georgia, 1997], pp. 54-55.
[6] Ibid, p. 57
[7] Ibid, p. 61.
[8] Ibid, p. 75.
[9] Ibid, p. 77.
[10] Ibid, p. 58
[11] Lichtenstein and Associates, Historic Bridge Inventory database.

Each of the twin bridges carries two lanes of traffic—one bridge, northbound and one bridge, southbound—of U.S. 41/State Route 3 over four lanes of State Route 61. This grade separation intersection was constructed where the U.S. 41 bypass intersected the existing State Route 20 and State Route 61. The intersection is located in north Cartersville in an area of post-1960 commercial development including motels and a shopping center. The twin bridges are two of thirteen that were built in Bartow County from 1948 to 1953 when U.S. 41 was dualized and placed on a new alignment bypassing the towns of Marietta, Kennesaw, Acworth, and Cartersville.